

Notes on some Pintail x Teal Hybrids

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On 17th November, 1959, I exhibited to the Club two examples of hybrids between the Pintail and the Green-winged Teal; the present communication deals with these specimens in detail.

In both cases these hybrids were shot in the wild and it is therefore impossible to say with any certainty which species was the male parent in these crosses, and the fact that the Pintail is placed first when referring to the hybrids is of no significance. Both the European and the American Green-winged Teal are involved in these crosses.

So far as the American Green-winged Teal is concerned I have been able to trace only one previous record of hybridization with the Pintail, this was listed by Sibley (1938) and was obtained in captivity in America. In the case of the European Green-winged Teal x Pintail or *vice versa* cross there are just over sixteen recorded instances most of which are mentioned by Gray (1958). In the majority of cases these refer to crosses in captivity, but in Meinertzhagen (1930) there is a fine coloured plate by Mr. George Lodge, of a male (by plumage) that was shot in the Egyptian Delta on 26th January, 1923.

The two examples that form the subject of this paper are described below:—

(1) *Anas acuta* L. x *Anas crecca crecca* L. (adult male by plumage). Shot in Holland, date? (see *Bull. Brit. Orn. Cl.* 49:95) and now in the Rothschild collection at the American Museum of Natural History, No. 734495.

Head and neck—forehead, crown and back of head chestnut running to a point at the nape; auricular region posterior to the eye and extending to the sides and across the back of the neck—metallic green with dark brownish wash behind and below the eye; lores, cheeks and sides of face pale cinnamon which extends to the sides and front of the lower neck; chin and upper throat dark brown, connected to the dark brown below the eye by a narrow vertical bar of dark brown faintly flecked with cinnamon (see plate 2). The lower nape, which in the normal male Teal is black glossed with bluish-violet, is in this specimen black with a faint greenish gloss as in the male Pintail. A faint white line runs from the root of the neck along the sides of the nape as far as the posterior edge of the vertical cheek bar.

Upperparts—mantle, back, sides of body, finely vermiculated greyish-black and buff; upper tail coverts and rump as in male Pintail, tail feathers elongated as in that species.

Wings—primaries sepia as in the males of both parent species; speculum metallic green on all webs, but outer border edged black, then narrowly with pale cinnamon; greater wing coverts mouse-grey broadly tipped with cinnamon as in the male Pintail; longest scapulars with outer webs black and some with inner webs narrowly buffish, forming buff and black line along sides of body above the wings.

Underparts—white with the lower belly and vent finely freckled with dusky grey as in the male Pintail; sides of upper breast faintly spotted; flanks vermiculated greyish-black and buff.



From left to right — Pintail x American Green-winged Teal, Pintail x European Green-winged Teal. Adult male Pintail. Note dusky freckling on belly and vent of both hybrids and spotted breast of the left-hand bird.

(2) *Anas acuta* L. x *Anas crecca carolinensis* Gmelin (adult male by plumage). Shot in Imperial County, California, U.S.A. on 17th December, 1952 (see Howell 1959), now in the collection of the University of California, No. 34590.

Head and neck—forehead and crown blackish-brown as in male Pintail; chin, throat, front of neck and sides of upper neck, brown of the same shade as the cheeks of the male Pintail; on the sides of the head are two irregular patches of pale cinnamon or rufous—the largest is situated anterior to and below the eye, and the smaller one in the auricular region, these are divided by a vertical brown band about 8mm. wide which extends from just below and behind the eye to the brown of the throat; large metallic-green post ocular patch is glossed with brown and extends to the nape; the black-brown of the crown runs down the nape, and the lower nape is black distinctly glossed with violet-purple as in the male Teal; the black-brown of the crown extends to the nape, terminating in a distinct nuchal tuft of steely-blue feathers.

Upperparts—mantle and upper back vermiculated blackish-grey and white; lower back, rump, and upper tail coverts mouse grey; faint trace of cream patch at sides of rump; central feathers of tail elongated as in the Pintail.

Wings—primaries sepia; secondaries with outer webs velvet-black with whitish tips; speculum metallic-green bordered anteriorly by buffish-brown and posteriorly by black margined with white and/or buff; innermost secondaries mouse-grey, the one bordering the speculum with the outer web velvety-black; greater wing coverts mouse-grey with broad cinnamon tips; most scapulars vermiculated blackish-grey with broad bands of velvet-black on outer webs forming a wide streak along the side of the body above the wings; vertical white streak on sides of breast in front of the wings as in the male American Green winged Teal.

Underparts—a distinct narrow white patch at the root of the foreneck merges into pale cinnamon on the sides of the lower neck, and this shade extends on to the upper and middle breast; the upper breast is spotted with numerous blackish spots similar to the male Green-Winged Teal; remainder of underparts white with fine dusky-grey freckling on the lower belly and vent as in the male Pintail; sides of body and flanks vermiculated blackish-grey and white; undertail coverts black edged with white.

Discussion

From the preceding descriptions it will be seen that in plumage both hybrids exhibit characters common to the males of both parent species, this being most noticeable in the colour and pattern of the mantle, back, flanks, vent, and the speculum. The spotted breast of the drake Green-winged Teal is represented in both hybrids, but is most extensive in (2). A distinct drake Pintail character also exhibited by both these hybrids are the broad cinnamon tips to the greater wing coverts. In measurements also the hybrids are absolutely intermediate as shown in Table 1.

In the case of hybrid (2) the vertical white streak on the sides of the breast just anterior to the wings may have been contributed by the American Green-winged Teal parent, particularly if this species was in

fact the male parent. However, although this character occurs in the drake of this species, one should not lose sight of the fact that it is also a normal character of the drake Baikal Teal *Anas formosa* Georgi where it is found in the same locus. Perhaps the most remarkable character exhibited by this particular hybrid, and one that is not referable to either parent species, is the distinct nuchal tuft (see plate 3) of mainly steely-blue feathers which do, however, have a metallic green gloss at certain angles. This remarkable phenomenon has also been recorded in an aberrant drake *Anas crecca crecca* obtained in Kent on 27th January, 1954 (Harrison 1954). It is tolerably certain that the Kentish bird was not a hybrid, and assuming this to be so we now have evidence that an aberrant nuchal tuft or crest can occur with or without interspecific hybridization being involved. It seems perfectly reasonable to regard this phenomenon as a reversionary character towards the Falcated Duck *Anas falcata* Georgi, both sexes of which have a nuchal crest, that of the drake being very highly developed. A character which the drakes of *A.c.crecca*, *A.c.carolinensis*, *A.acuta*, and *A.falcata* have in common is the creamy-yellow patch at the sides of the undertail coverts at their base. In hybrid (2) this is reduced to a vestigial trace only on the upper edge of the coverts.

Table 1
Measurements in Millimetres
of Hybrids and Males of the Parent Species

	<i>Wing</i>	<i>Tail</i>	<i>Culmen from feathering</i>	<i>Depth of bill at nostrils</i>
Pintail	254-287	172-209	48-59	16-21*
Green-winged Teal	175-192	62-72	34-38	13-14*
Pintail x American Green-winged Teal	225	135	43	17
Pintail x European Green-winged Teal	—	94	44	17

* 6 measured

Hybrid (1). It is of interest to compare this bird with that figured in Meinertzhagen (1930) as the parentage is the same in both cases. The Egyptian bird exhibits the following differences when compared with the Dutch specimen—the breast appears to be more heavily spotted; the line along the sides of the body above the wings is black only, whereas the Dutch bird has both a buff and a black line (it should be noted that the American hybrid also has only a black line); the bimaculation of the facial pattern is far more marked than either the Dutch or American hybrids, and the “windows” formed by the vertical brown bar are much paler and more whitish, this is well shown in Plate 1.



Pintail x American Green-winged Teal. Note nuchal tuft, bimaculated facial pattern and vertical white streak in front of wing.



Pintail x European Green-winged Teal, photographed from coloured plate in Meinertzhagen (1930). Note marked bimaculated facial pattern.



Pintail x European Green-winged Teal, showing bimaculated facial pattern.

The Bimaculated Facial Pattern

Bimaculation, in the sense in which I am using it here, means that the facial pattern below the eye consists basically of two divisions or "windows" formed by a vertical bar connecting the ocular region with the throat, this is well illustrated in Plates 1 and 2. As Dr. James M. Harrison (1959) has pointed out, bimaculation and bridling may be considered analogous the difference being primarily one of degree.

I regard the abnormal occurrence of this form of facial pattern as one of the most important phylogenetical characters so far found in the Anatidae and, as in the case of the aberrant occurrence of a nuchal tuft, we now know that it can occur with or without the influence of inter-specific hybridization. Including the two hybrids that form the subject of this communication, the following instances of abnormal bimaculation or bridling have now been recorded:—

(a) In Hybrids—

Anas acuta x *Anas crecca crecca*—two cases mentioned above.

Anas acuta x *Anas crecca carolinensis*—one case mentioned above.

Anas platyrhynchos platyrhynchos x *Anas superciliosa*—(Manson-Bahr 1953).

Anas crecca crecca x *Anas clypeata*—(Payn 1949, Harrison 1959).

Anas penelope x *Anas clypeata*—(Harrison 1959).

(b) Without Interspecific Hybridization—

Anas c. crecca—immature drake (Harrison 1945).

Anas c. crecca—aberrant drake (Harrison 1954).

In addition to these we have the so-called "Bimaculated Duck" *Anas glocitans* of Pennant the description of which is now believed to have been based on a hybrid bird, probably *Anas c. crecca* x *Anas p. platyrhynchos* (Harrison 1959).

It is certainly not without significance from an evolutionary and phylogenetic point of view that the two atavistic or reversionary characters discussed above (i.e. bimaculation or bridling, and a nuchal tuft or crest) are to be found normally in the Baikal Teal and/or Falcated Duck, both being species with a Far Eastern distribution. The persistence with which the former character appears in interspecific hybrids or mutants indicates that it must be a very archaic character. These facts support the theory that I have put forward before (Sage 1958), that those species now placed in the genus *Anas* originated from a primitive type which had an Asiatic distribution. The Baikal Teal may well be the modern representative of this ancestral species.

Summary

Two hybrids (adult males by plumage), of Pintail x European Green-winged Teal and Pintail x American Green-winged Teal parentage respectively, are described in detail. It is shown that on plumage pattern and colouring both hybrids exhibit many characters common to the adult males of both the parent species. Both hybrids also exhibit a markedly bimaculated facial pattern, and the importance of this as a reversionary phylogenetical character towards the Baikal Teal is discussed.

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Fracolinus schlegelii Heuglin in Cameroon

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While working with the Francolins at the Chicago Natural History Museum I came across a previously unrecognised specimen of *Fracolinus schlegelii* Heuglin. It was an adult male, collected 60 miles south of Yaoundere, Cameroon, 13th March, 1953, by A. I. Good. Since this would be the first record of the species from Cameroon, I sent the specimen to Mrs. B. P. Hall at the British Museum with the request that she compare it with topotypes there and confirm my identification. This she very kindly did, and noting that the Cameroon bird was a richer chestnut above and deeper buff below than any topotypical males, she loaned me two males and two females of *schlegelii* so that I might compare them myself. In addition, I have been able to borrow two males and two females from the Ubangi-Shari through the kindness of Dr. Jacques Berlioz of the Museum National d'Histoire Natural and Dr. Charles Vaurie of the American Museum of Natural History.

When the above specimens are layed out geographically, a great deal of variation is evident, but without any apparent pattern. Starting first with males, the two topotypes from Bahr-el-Ghazal are fairly uniform, and since Mrs. Hall selected them to show the extremes of variation of a long series, topotypical males evidently show little variation. They are characterized by having the upper parts chestnut, each feather with a narrow whitish or buff centre stripe edged with dusky and with a faint grayish bloom on the tip. The rump is vermiculated with dusky and in one specimen the vermiculations extend onto the lower back. The crown